Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for inserting a Protocol Data Unit (PDU) Length Indicator (LI) in a Radio Link Control (RLC) where a PDU mode is used in a protocol structured RLC layer for data transmission/receipt, the improvement comprising [[a]] eliminating from a next PDU an information component indicating that a current PDU size corresponds to the total size of components of the PDU, if the current PDU size corresponds to the total size of components of the PDU and the current PDU has information indicating that the current PDU size corresponds to the total size of components of the PDU.

2. (Original) The method of claim 1, wherein the current PDU comprises at least one Service Data Unit (SDU), wherein it is determined whether the PDU size corresponds to the sum of the components of the PDU according to a size of the at least one SDU, and the end of each of the at least one SDU is indicated with an LI value.

3. (Original) The method of claim 2, wherein if the current PDU includes at least one SDU and the end of a last SDU is indicated with the LI value inserted in the current PDU,

the next PDU does not include a LI value indicating that the current PDU size corresponds to the size of the components of the PDU.

4. (Original) The method of claim 3, wherein if the PDU size is larger than the size of the components of the PDU including the at least one SDU, and the end of the last SDU is indicated with the LI value, and a LI value indicating that the difference in the size of the PDU and the size of the components is padded is added to the components of the PDU to match the size, the next PDU does not have the LI value indicating that the current PDU size corresponds to the size of the components of the PDU.

5. (Original) A method for inserting a Protocol Data Unit (PDU) Length Indicator (LI) in a Radio Link Control (RLC) where a PDU mode is used in a protocol structured RLC layer for data transmission/receipt, comprising:

setting a size of a PDU to be used in a protocol structure and/or a total size of components of the PDU;

determining if an information LI value for an end of a last SDU of the PDU can be indicated by using the set PDU size and inputting the LI value into the PDU if it is determined to be possible; and

comparing the set PDU size with the total size of the PDU components.

6. (Original) The method of claim 5, wherein if the PDU includes an LI for each SDU in the PDU, then a subsequent PDU contains no LI associated with the PDU.

7. (Original) The method of claim 5, wherein if the PDU includes an LI for each SDU in the PDU and a padding LI to indicate that the end of the PDU is padding, then a subsequent PDU contains no LI associated with the PDU.

8. (Original) The method of claim 7, wherein the size of the padding is '0' and the padding LI indicates that the padding is present.

9. (Original) A method for inserting a Protocol Data Unit (PDU) Length Indicator (LI) in a Radio Link Control (RLC) where a PDU mode is used in a protocol structured RLC layer for data transmission/receipt, comprising:

forming a plurality of PDUs from a plurality of SDUs, each PDU having a header containing at least one length indicator representing a length of a corresponding SDU contained

in the PDU or representing a sum of lengths of corresponding SDUs contained in the PDU, wherein

a) a PDU contains a length indicator having a prescribed sequence of bit pattern when the previous PDU header did not contain complete length of the SDUs in the previous PDU; and

b) a PDU does not contain a length indicator that indicates the end of the SDU in the previous PDU if the previous PDU ends exactly with a last segment of the SDU.

10. (Original) A method of forming a header of a PDU, comprising:

forming a first PDU from a plurality of SDUs;

forming a header of the first PDU including a plurality of length indicators (LI), the length indicators representing lengths of corresponding SDUs of the PDU, wherein a final length indicator is provided to indicate that the PDU includes a final segment of padding, and wherein the final segment of padding can have a length of zero such that a subsequent second PDU header does not include information regarding the size of the first PDU.

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11. (Currently Amended) A method for inserting a PDU Length Indicator indicating that a previous PDU ends at the end of a last SDU of the PDU in an RLC of a radio communication system where a PDU mode is used in a protocol structured RLC layer for data transmission, comprising:

detecting whether a previous PDU ends at the end of a last SDU of the PDU;

checking whether a length indicator of the previous PDU indicates that the previous PDU ends at the end of the last SDU of the PDU; and

inserting a PDU Length Indicator if the length indicator of a previous PDU fails to indicate that the previous PDU ends at the end of last SDU of the PDU.

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12. (Currently Amended) A method for omitting a PDU Length Indicator indicating that a previous PDU ends at the end of a last SDU of the previous PDU in an RLC of a radio communication system where a PDU mode is used in a protocol structured RLC layer for data transmission, comprising:

checking whether a length indicator of a previous PDU indicates that the previous PDU ends at an end of a last SDU of the previous PDU; and

omitting the PDU Length Indicator if the length indicator of the previous PDU indicates that the previous PDU ends at the end of last SDU of the previous PDU.

~~13.~~ (New) A method of converting a plurality of data of an upper layer into a plurality of data units of a lower layer in a communication device, the plurality of data units including a first unit and a second unit, each data unit being a prescribed size and the second unit being a subsequent data unit of the first unit, the method comprising:

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providing a first corresponding number m of data of the upper layer or a portion thereof into the first unit of the lower layer with a first prescribed number x of first indicators, where m is greater than or equal to one and x is greater than or equal to 0; and

providing a second corresponding number n of data of the upper layer or a portion thereof into the second unit of the lower layer with a second prescribed number y of second indicators, where n is greater than or equal to one and y is greater than or equal to 1, wherein

at least one of the second indicators of the second unit indicates that an end of the m^{th} data of the upper layer is provided within the first unit of the lower layer, and there is no corresponding first indicator for the m^{th} data within the first unit.

14. (New) The method of claim 13, wherein the plurality of data comprises service data units (SDUs).

15. (New) The method of claim 14, wherein each of the first indicators indicates a last octet of each service data unit (SDU) ending within the first unit of the lower layer.

16. (New) The method of claim 14, wherein the at least one of the second indicators is a length indicator indicating that an end portion of a last service data unit (SDU) is included within the first unit of the plurality of data units.

17. (New) The method of claim 13, wherein the plurality of data units comprises protocol data units (PDUs).

18. (New) The method of claim 17, wherein the PDUs comprise unacknowledged mode (UMD) PDUs or acknowledged mode (AMD) PDUs.

19. (New) The method of claim 13, wherein the lower layer is a radio link control (RLC) layer.

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20. (New) The method of claim 13, wherein each indicator of the first unit is a length indicator indicating an end of a corresponding data of the upper layer within the first unit of the lower layer.

21. (New) The method of claim 13, wherein the at least one of the second indicators has a predefined value of "0".

22. (New) The method of claim 13, wherein the at least one of the second indicators is a first length indicator within the second unit.

23. (New) The method of claim 13, wherein the at least one of the second indicators indicates that a last segment of the m^{th} data of the upper layer exactly ends or fills at an end of the first unit of the plurality of data units.

24. (New) The method of claim 13, wherein each of the first and second indicators has a size of one octet.

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25. (New) The method of claim 13, further comprising:

padding a remaining portion of at least one of the first and second units after including the data of the upper layer; and

providing a predefined indicator indicating padding information into at least one of the first and second units.

26. (New) The method of claim 13, wherein each of the first and second units further includes a header, the header including a D/C indicator indicating if the corresponding data unit includes data information or control information, a sequence number of the corresponding data unit, a polling indicator for requesting a status report, and a header extension indicator for notifying if subsequent information is data or one of first and second indicators.

27. (New) The method of claim 13, wherein the communication device is a base station or a mobile station.

28. (New) The method of claim 13, wherein the prescribed size is a fixed size and the data of the upper layer has a variable size.

29. (New) The method of claim 13, wherein each of the first and second indicators comprises 7 bits or 15 bits.

30. (New) A method of converting a data unit of an upper layer into a current data unit of a lower layer having at least one fixed size, the method comprising:

including the data unit of the upper layer into the current data unit of the lower layer; and

including a second indicator into a following data unit of the lower layer when an end of the data unit of the upper layer is included within the current data unit of the lower layer and a first indicator indicating the end of the data unit of the upper layer is not included within the current data unit of the lower layer, wherein the second indicator indicates that the end of the data unit of the upper layer is included within the current data unit of the lower layer.

31. (New) The method of claim 30, wherein the data unit of the upper layer is a service data unit (SDU).

32. (New) The method of claim 31, wherein the first indicator is to indicate the last octet of each service data unit (SDU) ending within the current data unit of the lower layer.

33. (New) The method of claim 31, wherein the second indicator is a length indicator indicating that the last service data unit (SDU) within the current data unit of the lower layer includes the end part of the data unit of the upper layer and has a predefined value.

34. (New) The method of claim 30, wherein the current data unit of the lower layer and the following data unit of the lower layer are a protocol data unit (PDU) respectively.

35. (New) The method of claim 34, wherein the protocol data unit (PDU) is an unacknowledged mode (UMD) protocol data unit (PDU) or an acknowledged mode (AMD) protocol data unit (PDU).

36. (New) The method of claim 30, wherein the lower layer is a radio link control (RLC) layer.

37. (New) The method of claim 30, wherein the first indicator is a length indicator that indicates the end of the data of the upper layer within the lower layer.

38. (New) The method of claim 30, wherein the second indicator is predefined as "0".

39. (New) The method of claim 30, wherein the second indicator is placed as the first length indicator in the following data unit of the lower layer.

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40. (New) The method of claim 30, wherein the second indicator indicates that the last segment of the data unit of the upper layer exactly ends at the end of the current data unit of the lower layer.

41. (New) The method of claim 30, further comprising:

padding a remained portion of the following data unit of the lower layer after including the data unit of the upper layer; and

including a predefined third indicator into the following data unit of the lower layer, wherein the predefined third indicator includes padding information with respect to the padded portion.

42. (New) The method of claim 30, wherein each of the current data unit of the lower layer and the following data unit of the lower layer comprises, a header portion having a data sequence number, an indicator portion indicating lengths related to the data unit of the upper layer, and a data portion including the data unit of the upper layer.

43. (New) A mobile communication system having an upper layer and a lower layer, in which a data unit of the upper layer is converted into a current data unit of the lower layer having at least one fixed size, the system comprising:

means for including the data unit of the upper layer into the current data unit of the lower layer; and

means for including a second indicator into a following data unit of the lower layer when an end of the data unit of the upper layer is included within the current data unit of the lower layer and a first indicator indicating the end of the data unit of the upper layer is not included within the current data unit of the lower layer, wherein the second indicator indicates that the end of the data unit of the upper layer is included within the current data unit of the lower layer.

44. (New) The system of claim 43, wherein the data unit of the upper layer is a service data unit (SDU).

45. (New) The system of claim 44, wherein the first indicator is to indicate the last octet of each service data unit (SDU) ending within the current data unit of the lower layer.

46. (New) The system of claim 44, wherein the second indicator is a length indicator indicating that the last service data unit (SDU) within the current data unit of the lower layer includes the end part of the data unit of the upper layer.

47. (New) The system of claim 43, wherein the current data unit of the lower layer and the following data unit of the lower layer are a protocol data unit (PDU) respectively.

48. (New) The system of claim 47, wherein the protocol data unit (PDU) is an unacknowledged mode (UMD) protocol data unit (PDU) or an acknowledged mode (AMD) protocol data unit (PDU).

49. (New) The system of claim 43, wherein the lower layer is a radio link control (RLC) layer.

50. (New) The system of claim 43, wherein the first indicator is a length indicator that indicates the end of the data unit of the upper layer within the lower layer.

51. (New) The system of claim 43, wherein the second indicator is predefined as "0".

52. (New) The system of claim 43, wherein the second indicator is placed as the first length indicator in the following data unit of the lower layer.

53. (New) The system of claim 43, wherein the second indicator indicates that the last segment of the data unit of the upper layer exactly ends at the end of the current data unit of the lower layer.

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54. (New) The system of claim 43, further comprising:

means for padding a remained portion of the current data unit of the lower layer after including the data unit of the upper layer into the current data unit of the lower layer; and

means for including a predefined third indicator into the current data unit of the lower layer, wherein the predefined third indicator includes padding information with respect to the padded portion.

55. (New) The system of claim 43, wherein each of the current data unit of the lower layer and the following data unit of the lower layer comprises, a header portion having a data sequence number, an indicator portion indicating lengths related to the data of the upper layer, and a data portion including the data of the upper layer.